UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,658	04/27/2001	Chester G. Nelson	P-8850.00	9007

27581 7590 11/14/2005

MEDTRONIC, INC.
710 MEDTRONIC PARKWAY NE
MS-LC340
MINNEAPOLIS, MN 55432-5604

EXAMINER	
CHANKONG, DOHM	
ART UNIT	**PAPER NUMBER**
2152	

DATE MAILED: 11/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/844,658	NELSON ET AL.	
	Examiner	Art Unit	
	Dohm Chankong	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 October 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4 and 6-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4, 6-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1> This action is in response to Applicant's amendment and remarks. Claims 9-25 have been cancelled. Claims 1-4 and 6-8 are presented for further examination.

2> This is a final rejection.

Response to Arguments

3> Applicant's arguments have been fully considered but they are not persuasive. Further, Applicant's amendments do not overcome the prior art reference.

Applicant has amended claim 1 to read, in relevant part, "with the at least one hardware module being deployable to multiple types of medical device interface instruments." Claim 6 was similarly amended. Applicant further asserts that the prior art references "deal solely with a single device: a standard programmer" and thus do not teach multiple types of devices.

However, Examiner interprets the prior art references, Faisandier and Causey, differently. In regards to claim 1, which teaches a hardware module deployable to multiple types of instruments, Examiner relied on Faisandier and Causey's programmer as teaching the claimed hardware module, not the medical device instruments. Faisandier's programmer interfaced with such instruments utilizing his novel object-oriented framework.

Therefore, the analysis of the Faisandier and Causey references, in light of the new amendments, centers on whether they teach that their programmer [corresponding to a

hardware module] is deployable (amended claim 1) and can interface (amended claim 6) to "multiple types of medical device interface instruments".

Examiner asserts that they do. The purpose of Faisandier's object-oriented design is to extend the functionality and compatibility of the programmer so that it can interface with any medical device [column 2 «lines 45-54»], including *any* implant, regardless of its make or manufacturer (emphasis added) [column 3 «lines 37-40»]. The programmer is able to achieve such extendibility by downloading object interfaces from the medical instruments themselves. Thus, Faisandier does teach that his programmer can be deployable and can interface (through the downloaded objects) to multiple types of instruments (any implant from any manufacturer and of any make).

Based on these remarks, Examiner believes that Faisandier still reads on the amended claims, and maintains the rejections based on Faisandier and Causey as set forth in the previous Office Action, dated 7.15.2005.

4> Additionally, based on Applicant's amendment, a new grounds of rejection for the claims is also introduced.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5> Claim 6 is rejected under 35 U.S.C § 102(b) as being anticipated by Faisandier, U.S Patent No. 5.800.473.

6> As to claim 6, Faisandier discloses a computerized component architecture for medical device systems, comprising:

a body of software components having standardized software interfaces to multiple types of medical device interface instruments [Figure 1 | column 3 «lines 37-40» | column 4 «line 62» to column 5 «line 2»];

a computerized network of processing equipment with at least two nodes remote from each other [Figure 1 «items 200, 320, 300»];

means for execution of software components via these interfaces from remote processing equipment [column 5 «lines 3-38» | column 6 «lines 33-59»].

7> Claim 6 is rejected under 35 U.S.C § 102(b) as being anticipated by Montejo et al, U.S Patent No. 5.161.222 ["Montejo"]

8> As to claim 6, Montejo discloses a computerized component architecture for medical device systems, comprising:

a body of software components having standardized software interfaces to multiple types of medical device interface instruments [column 3 «lines 10-16» | column 6 «lines 4-10» | column 7 «lines 9-41»];

a computerized network of processing equipment with at least two nodes remote from each other [Figure 34]; and

means for the execution of software components via these interfaces from remote processing equipment [column 6 «lines 11-41»].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9> Claims 1-4, 7, and 8 are rejected under 35 U.S.C § 103(a) as being unpatentable over Faisandier, in view of Causey, III et al, U.S Patent No. 4.809.697 ["Causey"].

10> As to claim 1, Faisandier discloses a computerized component architecture for medical device systems, comprising:

a body of software components having standardized software interfaces to medical device interface instruments and IMDs [abstract | Figure 1 | column 5 «lines 3-14»]; and

at least one hardware module capable of executing the software components, with the at least one hardware module being deployable [Figure 1 «items 300, 350»];

said hardware module having means for communication with a data communications network [Figure 1 «item 400»], and with a medical device external to the hardware module [Figure 1 «item 200»].

Faisandier does disclose that his hardware module can interface with multiple types of interface instruments [column 3 «lines 37-40»] but does not explicitly disclose that his hardware module (programmer) is deployable to them.

11› In the same field of invention, Causey is directed towards programming of implantable medical devices using an external programmer. Causey discloses a hardware module that is deployable to a plurality of medical device interface instruments [Figure 1 «items 28, 31, 30» | column 5 «lines 41-46» | column 6 «lines 21-25» where : Causey discloses a telemetry head (programmer) that is connected through a cable to the medical interface instrument. This functionality suggests that the telemetry head is deployable to a plurality of different instruments as well]. It would have been obvious to one of ordinary skill in the art to modify Faisandier's programmer into the separate telemetry head and medical interface instrument to allow the system to consist of modules. One would have been motivated to provide such functionality to Faisandier to allow different modules in his system to be easily upgradeable and replaceable [see Causey, column 9 «lines 46-51»].

12› As to claim 2, Faisandier discloses the architecture of claim 1, wherein at least one hardware module has processing and telemetry capabilities [column 1 «lines 30-36»].

13> Faisandier disclose the hardware module installed within an interface instrument [column 10 «lines 10-14» where : the display is the interface instrument] but does not disclose that the module is deployable. However, such a skill is well known and expected in the art. For example, Snell discloses a removable hardware that can be installed or removed from the medical interface instrument [column 6 «lines 3-6»] for the purposes of easily upgrading the interface instrument. Therefore, it would have been obvious to one of ordinary skill in the art to modify Faisandier's hardware module with removable (deployable) functionality. One would have been particularly motivated to provide such functionality for Faisandier to allow the module to be easily installed on different interface instruments [see Snell, column 6 «lines 6-14»].

14> As to claim 4, Faisandier discloses the architecture of claim 1 wherein the component software architecture is optimized to be executed on the hardware module [column 4 «lines 24-35» where : as Faisandier's software is designed to be run on the hardware modules, the software should be optimized for execution on the hardware].

15> As to claim 7, Faisandier discloses the architecture of claim 6, further comprising a hardware module capable of executing the software components [Figure 1 «item 300»] but does not disclose that his hardware module (programmer) is deployable to a plurality of medical device interface instruments.

16› Causey discloses a hardware module that is deployable to a plurality of medical device interface instruments [Figure 1 «items 28, 31, 30» | column 5 «lines 41-46» | column 6 «lines 21-25» where : Causey discloses a telemetry head (programmer) that is connected through a cable to the medical interface instrument. This functionality suggests that the telemetry head is deployable to a plurality of different instruments as well]. It would have been obvious to one of ordinary skill in the art to modify Faisandier's programmer into the separate telemetry head and medical interface instrument to allow the system to consist of modules. One would have been motivated to provide such functionality to Faisandier to allow different modules in his system to be easily upgradeable and replaceable [see Causey, column 9 «lines 46-51»].

17› As to claim 8, Faisandier discloses the architecture of claim 7 wherein said hardware module is integrated within at least one medical device interface instrument [column 10 «lines 10-14» where : the display is the interface instrument].

18› Claims 1-4, 7, and 8 are rejected under 35 U.S.C § 103(a) as being unpatentable over Montejo, in view of Causey.

19› As to claim 1, Montejo discloses a computerized component architecture for medical device systems, comprising:

a body of software components having standardized software interfaces to medical device interface instruments [column 6 «lines 4-10» : Montejo's drivers correspond to software components]; and

at least one hardware module capable of executing the software components, with the at least one hardware module [column 3 «lines 17-23»];

said hardware module having means for communication with a data communications network [Figure 34 | column 5 «lines 34-64»].

Montejo does disclose that his hardware module can interface with multiple types of interface instruments [Figure 34] but does not explicitly disclose that his hardware module (programmer) is deployable to them.

20> In the same field of invention, Causey is directed towards programming of implantable medical devices using an external programmer. Causey discloses a hardware module that is deployable to a plurality of medical device interface instruments [Figure 1 «items 28, 31, 30» | column 5 «lines 41-46» | column 6 «lines 21-25» where : Causey discloses a telemetry head (programmer) that is connected through a cable to the medical interface instrument. This functionality suggests that the telemetry head is deployable to a plurality of different instruments as well].

Furthermore, Montejo suggests that his invention may be implemented as a "retrofit" [column 3 «lines 17-23»]. The "retrofit" description suggests deployment capability. Further, it would have been obvious to one of ordinary skill in the art to modify Montejo's programmer into the separate telemetry head and medical interface instrument to allow the system to consist of modules. One would have been motivated to provide such functionality to Montejo to allow different modules in his system to be easily upgradeable and replaceable,

extending Montejo's own suggesting of having a module that can be retrofitted [see Causey, column 9 «lines 46-51»].

21› As to claim 2, Montejo discloses the architecture of claim 1, wherein at least one hardware module has processing and telemetry capabilities [column 2 «line 30» to column 3 «line 16» | column 5 «lines 49-55»].

22› As to claim 3, Montejo disclose the hardware module installed within an interface instrument [column 3 «lines 17-23» : module can be retrofitted to computer interface] but does not disclose that the module is deployable. However, as discussed above, the concept of retrofitting suggests that Montejo contemplated deployment functionality. Therefore, it would have been obvious to one of ordinary skill in the art to reasonably infer Montejo's hardware module with removable (deployable) functionality. One would have been particularly motivated to provide such functionality for Montejo's to allow the module to be easily installed on different interface instruments.

23› As to claim 4, Montejo discloses the architecture of claim 1 wherein the component software architecture is optimized to be executed on the hardware module [column 3 «lines 6-9»].

24› As to claim 7, Montejo discloses the architecture of claim 6, further comprising a hardware module capable of executing the software components [column 6 «lines 23-25»] but

does not disclose that his hardware module (programmer) is deployable to a plurality of medical device interface instruments.

25› Montejo discloses that his invention can be implemented as a module that can be retrofitted onto existing devices. Further, Causey discloses a hardware module that is deployable to a plurality of medical device interface instruments [Figure 1 «items 28, 31, 30» | column 5 «lines 41-46» | column 6 «lines 21-25» where : Causey discloses a telemetry head (programmer) that is connected through a cable to the medical interface instrument. This functionality suggests that the telemetry head is deployable to a plurality of different instruments as well]. It would have been obvious to one of ordinary skill in the art to modify Montejo's programmer into the separate telemetry head and medical interface instrument to allow the system to consist of modules. One would have been motivated to provide such functionality to Montejo to allow different modules in his system to be easily upgradeable and replaceable [see Causey, column 9 «lines 46-51»].

26› As to claim 8, Montejo discloses the architecture of claim 7 wherein said hardware module is integrated within at least one medical device interface instrument [Figure 34 | column 6 «lines 1-3»: video display].

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dohm Chankong whose telephone number is 571.272.3942. The examiner can normally be reached on Monday-Thursday [7:00 AM to 5:00 PM].

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571.272.3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DC

BUNJOB JAROENCHONWANIT
PRIMARY EXAMINER